

Amendments to the Claims

This listing of claims replaces all prior versions and listings of the claims in the application.

Listing of Claims

1. (currently amended) A component which is produced or processed by powder metallurgy and has at least one porous region, which is formed from an intermetallic phase or solid solutions or has a surface coating of this type, and at least one areal fluid-tight region, which is formed from a metal, a metal alloy, and the corresponding intermetallic phase or solid solution.
2. (original) The component as claimed in claim 1, wherein the fluid-tight region forms part of the outer shell of the component.
3. (original) The component as claimed in claim 1, wherein the fluid-tight region is surrounded by the porous region.
4. (currently amended) The component as claimed in ~~one of the preceding claims, claim 1~~ wherein the corresponding intermetallic phase or the solid solutions are ~~based on~~ selected from at least one of the four consisting of nickel, aluminum, molybdenum, tungsten, iron, titanium, cobalt, copper, silicon, cerium, tantalum, niobium, tin, zinc ~~or~~ and bismuth.
5. (currently amended) The component as claimed in ~~one of the preceding claims, claim 1~~ wherein at least the porous region is formed from nickel aluminide or is coated therewith.
6. (currently amended) The component as claimed in ~~one of the preceding claims, claim 1~~ wherein at least the porous region has a porosity and density which change in steps or gradually in the direction of the areal fluid-tight region.

7. (currently amended) The component as claimed in ~~one of the preceding claims, claim 1~~ wherein at least the porous region is formed from a metal or metal alloy of the corresponding intermetallic phase or solid solution.

8. (currently amended) The component as claimed in ~~one of the preceding claims, claim 1~~ wherein at least one passage or aperture is formed in the areal fluid-tight region.

9. (currently amended) The component as claimed in ~~one of the preceding claims, claim 1~~ wherein the areal, fluid-tight region has a density of over 96% of the theoretical density.

10. (currently amended) A process for producing ~~the component as claimed in claim 1 by powder metallurgy, a component which is produced or processed by powder metallurgy and has at least one porous region, which is formed from an intermetallic phase or solid solutions or has a surface coating of this type, and at least one areal fluid-tight region, which is formed from a metal, a metal alloy, and the corresponding intermetallic phase or solid solution~~ wherein a starting powder which has a sintering activity and forms intermetallic phases or solid solutions is used to form the areal fluid-tight region.

11. (original) The process as claimed in claim 10 wherein a starting powder with a grain size $d_{50} < 50\mu\text{m}$ and a powder with a sintering activity obtained by high-energy milling are used for production.

12. (original) The process as claimed in claim 11 wherein a powder perform is produced from differentiated starting powders, the dimensions of which perform take account of the different shrinkages of the differentiated starting powders during sintering.

13. (currently amended) A process for producing ~~the component as claimed in claim 1, a component which is produced or processed by powder metallurgy and has at least one porous region, which is formed from an intermetallic phase or solid solutions or has a surface coating of this type, and at least one areal fluid-tight region, which is formed from a metal, a metal alloy, and the corresponding intermetallic phase or solid solution~~ wherein a porous structure, which forms the porous region, is coated with a powder which has a sintering activity and forms intermetallic phases or solid solutions, and the areal fluid-tight region is formed at a surface of the component by a subsequent sintering operation.

14. (currently amended) A process for producing ~~the component as claimed in claim 1 claim 1, a component which is produced or processed by powder metallurgy and has at least one porous region, which is formed from an intermetallic phase or solid solutions or has a surface coating of this type, and at least one areal fluid-tight region, which is formed from a metal, a metal alloy, and the corresponding intermetallic phase or solid solution~~ wherein a metallic, areal and fluid-tight element, which forms the fluid-tight region, is coated with a layer of a powder which contains at least one element of the intermetallic phase or solid solution, and the fluid-tight region is joined to a porous structure, which has been placed on top of the powder layer and forms the porous region, by sintering.

Amendments to the Claims

This listing of claims replaces all prior versions and listings of the claims in the application.